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DOMINION OF CANADA.

THE PROVINCE OF MANITOBA
AND NORTH-WEST TERRITORY.

INFORMATION FOR INTENDING IMMIGRANTS.

(FIFTH EDITION.)



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Queen's University at Kingston

NORTH-WEST TERRITORY OF CANADA.

THE PROVINCE OF MANITOBA.

The object of this pamphlet is to show as briefly and plainly as possible, the advantages which the Province of Manitoba possesses, for the settlement of Immigrants from Europe or the United States, or Migrants from the older Provinces of Canada, especially the class of Farmers having sufficient capital to make a start in life. All the descriptions it contains will also apply, in greater or less degree to the adjoining territory.

Nothing will be stated in this pamphlet which cannot be absolutely relied on, or for which there is not undoubted authority, official or other.

It is proposed to treat of the Province of Manitoba in its relations to the Continent of America and the older settled parts of Canada; and also under the several heads of Climate and Productions; Soil; Communications and Markets; General suitability for Immigrants from the United Kingdom; System of Surveys of Townships; Practical Directions how to take up Homesteads upon such Townships; and the Canadian Pacific Railway.

I. MANITOBA AND ITS RELATIONS TO THE CONTINENT OF AMERICA.

The Province of Manitoba is situate in the very middle of the continent, being nearly equi-distant from the Atlantic and Pacific Oceans, East and West, and the Arctic Ocean and the Gulf of Mexico, on the North and South. It is in the same latitude as Belgium, and parts of Prussia and Austria. Manitoba and its connecting territories East of the Rocky Mountains, are in many senses, the equivalent of both Russia and Germany, on the Continent of Europe.

Manitoba is on the route of the Canadian Pacific Railway connecting the Atlantic and Pacific Oceans, not only by the shortest line, but also by the line which possesses the Gate of the Rocky Mountains; the altitudes to be traversed being actually much less than half those now scaled by the Union and Central Pacific Railway, connecting San Francisco with Chicago, and the Eastern Railway System of the Atlantic United States seaboard.

The Canadian Pacific Railway, unlike its longer Southern rival, has the advantage of passing through what is called the "Fertile Belt" of North America, instead of the Great American Desert.

Manitoba is also the centre of River Navigation of the Northern part of Central America. The City of Winnipeg is built on the point of land forming the junction of the Assiniboine with the Red River of the North. The former has a navigation of over 600 miles; and the latter which takes its rise in the state of Minnesota, has a navigation of about 440 miles from Moorehead, before it reaches Winnipeg; whence it continues on its course until it reaches Lake Winnipeg, which is a lake of nearly 300 miles in length; and receives the waters of the Saskatchewan, navigable from a few miles above its mouth to the foot of the Rocky Mountains. The short distance between the navigable waters of this great river and the lake, is, for a present expedient, overcome by a tramway. This water system constitutes one of the most marked physical features of the interior of the Continent of North America. The total length of the rivers is about ten thousand miles, of which between three and four thousand miles are navigable for steamboats.

The late Governor-General, Lord Dufferin, on the occasion of his visit to Manitoba in 1877, in a speech delivered at Winnipeg, expressed his appreciation of the great geographical facts which have been briefly sketched in the preceding lines, in the following words:—"From geographical position, and its peculiar characteristics, Manitoba may be regarded as the keystone of that mighty arch of sister Provinces which spans the continent from the Atlantic to the Pacific. (Great applause.) It was here that Canada, emerging from her woods and forests, first gazed upon her rolling

“ prairies and unexplored North-West, and learnt as by an unexpected revelation, that her historical territories of the Canadas, her eastern seabords of New-Brunswick, Labrador and Nova Scotia ; her Laurentian lakes and valleys, corn lands and pastures, though themselves more extensive than half a dozen European kingdoms, were but the vestibules and antechambers to that till then undreamt of Dominion, whose illimitable dimensions alike confound the arithmetic of the surveyor and the verification of the explorer.

“ It was hence that, counting her past achievements as but the preface and prelude to her future exertions and expanding destinies, she took a fresh departure, received the afflatus of a more imperial inspiration, and felt herself no longer a mere settler along the banks of a single river, but the owner of half a continent, and in the magnitude of her possession, in the wealth of her resources, in the sinews of her material might, the peer of any power on the earth. (Loud applause.)”

Lord Dufferin, in using this language, indulged in no exaggeration. On the contrary, he rather under than overstated the thoughts which naturally crowded on his mind.

II. CLIMATE.

The climate of Manitoba gives the conditions of decided warmth in summer and decided cold, in winter. The summer mean is 67° to 76° , which is about the same as that of the state of New York. In winter the thermometer sinks to 30 and 40 degrees below zero ; but the universal testimony of settlers is, that this degree of cold, which is accompanied by a very bright and dry atmosphere, is productive of much less unpleasant sensations, than the higher temperature of winter accompanied with humidity which is found on the eastern face of the continent. The winter drawback is the occurrence sometimes, but not very frequently, of sudden storms of wind and snow, called by the inhabitants “ blizzards.” Many settlers from the older parts of Canada who have gone to live in Manitoba have expressed their preference for its climate. They find it more pleasant.

The climate of Manitoba is beyond question, one of the most healthy under the sun. Diseases of the lungs especially, are not native ; and fevers of all kinds are very little known. The exceptions have been found to arise from defective sanitary conditions in the city of Winnipeg ; but even these are now corrected.

Snow does not generally fall on the prairies to an average greater depth than 18 inches, and buffaloes and the horses of the country graze out of doors all winter. They paw the snow off the prairie grass, and grow fat upon it. Horses which have been turned out of doors to winter, have been known to return in the spring with increased numbers, from the mares having foaled. Instances are stated in which horned cattle have grazed out all winter.

The snow goes away and ploughing begins from the first to the end of April ; from ten days to a fortnight earlier than in the Ottawa region ; and the Red River is open from ten days to a fortnight earlier than the Ottawa River. The crops are harvested in August, the long sunny days of summer bringing vegetation of every kind to rapid maturity. The days are warm and the nights cool. The summer months are part of May, June, July, August and part of September. Autumn begins about the 20th of September and lasts until November ; when the regular frosts set in ; and the winter proper continues until the end of March.

The climate, in short, is continental and dry, instead of what may be termed coast and humid ; and it gives the conditions of what would be termed in Europe, "Italian skies," with sufficient rains in spring and summer for the purposes of vegetation.

A climatic drawback is a liability to spring frosts, but this is a drawback common to a large part of the Continent of North America, including the whole of the older provinces of Canada, and the Northern States of the American Union. It may be remarked, moreover, that the Continent of Europe is not free from similar visitation. The wheat crop does not appear to be at all injuriously affected by spring frosts in Manitoba.

It has been previously herein stated that Manitoba has the latitude of Belgium, and it has the summer suns of that Kingdom.

III.—PRODUCTIONS.

Wheat may be said to be the product for which Manitoba is specially adapted. The well known American writer, Blodgett, states that "the basin of the Winnipeg is the seat of the greatest average wheat product of the American Continent and probably of the world." The climate and soil (of which special mention will be made hereafter) are both in an eminent degree favourable to the growth of this great cereal. It commonly attains a weight of from 63 to 66 lbs. per bushel; the average yield per acre being about 25 bushels an acre; but very much larger yields per acre are common. Yields of over 40 bushels per acre are often reported. Wheat grown in Manitoba is heavier than that grown in other parts of the Continent; and it commands a higher price, particularly from its hard and flinty nature, being favourable to the new processes of milling.

Oats and Barley, in fact, all cereals grow in great luxuriance; and are of the best quality. There are varieties of Indian corn or Maize which will ripen, but the country is not very well adapted for the growth of this grain. There were, however, very fine specimens of Maize grown and ripened in Manitoba shown at the Dominion Exhibition at Ottawa.

Potatoes and other root crops grow with very great profusion; the potato especially, attaining an almost incredible size. The quality also is very superior, in fact, as markedly so as the size.

All the ordinary garden vegetables do well, and tomatoes and melons ripen in the open air. This may be noted as a climatic fact of special interest, as marking the degree of summer heat, and as showing, for horticultural purposes, superiority over the climate of England, where neither of these fruits will ripen without the use of glass.

Hops grow wild on the prairies in great profusion. And as respects flax, the conditions are especially favorable to its growth; and this, with

its manufacture, will soon become a great industry in the North West. The Mennonites have already begun to grow it largely, and have commenced the exportation of the seed by the car load.

All the ordinary small fruits, such as currants, strawberries, raspberries, &c., are found in abundance; but apples have been very little grown, and the tests so far seem to be insufficient to establish whether they are adapted to the country. They are, however, grown in Minnesota, where grapes also ripen, and the conditions of Manitoba would seem to be as favourable as those of that State.

Trees are found in belts along the borders of rivers and streams. They would grow very rapidly on the prairies, but for prairie fires. The principal varieties are oak, ash, white wood and poplar, elm, tamarac and spruce. There is sufficient wood for fuel for present use in Manitoba; but as the population increases coal may be easily made available, and in fact at the present moment railways are being rapidly pushed to the objective point of the Souris coal fields. Peat also may be made available. Straw also may be compressed as in Lombardy and on the steppes of Russia, and it is used now in Manitoba by the Mennonites. Wood also may be grown with great rapidity. Young trees will as settlement progresses be protected from prairie fires.

Cattle are easily kept on the prairies and grow fat on the prairie grass. Sheep do well in this dry climate; and so far there are no diseases known among them. The meats from these animals are said to be much better than those from animals fattened in stables in the east, or in mother country.

An Eastern Townships farmer settled near Morris, about midway between Winnipeg and the United States frontier, writing on the 1st July last thus describes the appearance of the grasses: "I wish you could see the meadows as they are now. There is a great variety of grasses. There is a red top that looks like our red top, which grows where the land is very

“ wet, and is very tall and fine. It would make first rate hay, but the land
“ where it grows is too wet to cure it on. The handsomest sight, however,
“ for hay, is a mixture of wild pea or vetch, and a fine kind of wild grass.
“ It is between 2 and 3 feet high, and so thick and even all over that I do
“ not think a ball would fall to the ground through it. The pea is a dark
“ green, and the grass a pale green. To look over such a field of thousands
“ of acres, is a sight that cannot be seen any where except on a prairie. On
“ the dry prairie, the grass is short. There is a good deal of vetch and rose
“ bush short and fine, almost like clover, and weeds, with here and there,
“ scattering spears of coarse wild grass, spots of wild flax, and many other
“ kinds of plants. This is the best time to judge of the wetness or dryness
“ of the land. The hay is a sure indication. If you see red top, you will
“ find water or very moist land ; if it is a rush or rough head wild grass, the
“ land is wetter ; and where it is white or pale-top tall grass, it is as well
“ to keep out.”

The cultivated grasses, timothy, clover, &c., will answer very well ; but they are little grown, so great is the profusion of natural hay.

There is a great abundance of many kinds of game, especially the feathered varieties. Prairie chickens are very numerous ; and ducks and geese abound in countless multitudes.

Several kinds of excellent fish are found in the lakes and rivers. The white fish is especially notable as a valuable product of the waters of the North-West. The cat-fish grows to a large size ; and is much prized as food.

IV. SOIL.

The great wealth of the rich deep black soil of Manitoba is its principal attraction to the agriculturist. It appears to be an argillaceous mould or alluvium resting on a very tenacious clay, which is called by some writers, lacustrine.

The depth of this black earth varies from 12 inches to 4 feet ; and in sections which have been cut through on the banks of some of the rivers, it

has been found to the depth of 12 and 14 feet. Chemical analyses of this soil has been made both in Germany and Scotland ; and the results of scientific process have established what has been popularly known, that the soil of Manitoba is among the richest in the world and the best adapted for the growth of Wheat. The analysis in Germany established the fact that it is specially rich in nitrogen and lime ; and the same fact has been established in Edinburgh. Manure is not used, and wheat has been grown for many years in succession on the same land without any apparent exhaustion. It is one of the questions of the future, whether or not the use of manure will be desirable or necessary ; but it certainly is not for some years after the first breaking up of the prairie.

The present undoubted great richness of the Prairie Soil has clearly arisen from the gathering of the droppings from birds and animals and the ashes of the prairie fires which have accumulated for ages, together with decayed vegetable matter ; the whole resting on a very retentive clay sub-soil. It is to the abundance of this stored up wealth in the soil, that the agriculturist from older countries is invited, instead of painfully endeavouring to restore worn out soils by expensive processes of manuring. An intelligent farmer from the Province of Quebec, thus writes his impression of the soil of Manitoba : “ As far as the quality of the land is concerned, it “ would be useless to look further for better. It is hard to describe the “ soil. It is black and works more like clay than any thing else. When it “ is properly worked, it becomes fine as powder, but if worked when wet, it “ becomes lumpy and hard. The mud holes as they dry up, form a crust “ like Indian rubber ; and if a rut is made before the mud gets hard enough “ to bear, it is exactly like a rut in frozen ground. It is hard to tell how “ deep the soil is. The surface is a mixture of clay and vegetable mould, “ and as you go down the clay becomes purer.” The greatest drawback is the occasional visitation of grass-hoppers. This is a serious, and perhaps the only serious drawback of the North-West ; but on this point, the Hon. John Sutherland, a Senator, of the Dominion Parliament from Manitoba, who was born in Winnipeg, and has been all his life a practical farmer, said in his evidence before a committee of Parliament in 1876, “ I think

“that extensive settlement will prevent the ravage of the grass-hoppers, and we have good reason to believe that we will be exempt from them during the coming season, as there were no deposits of eggs in the Province in 1875, and in all probability we will be relieved of that plague for many years to come. To my own knowledge the Province was not affected by grass-hoppers previous to 1867, since which date we have had them off and on about every two years, or each alternate year.” There have been no grass-hoppers in Manitoba since this evidence was given to the date of the present pamphlet in 1881, and it is to be observed that when they come in places where there is adequate population they can be coped with.

V. COMMUNICATIONS AND MARKETS.

The water system of the middle portion of the continent of which Manitoba is the centre, was described in general terms in the first chapter of this pamphlet, as was also its position on the route of the Canadian Pacific Railway. The water system of Manitoba may, by a series of works, not of great magnitude, when compared with the vastness of the results to be obtained, be connected with the Lake and St. Lawrence system of water communication, which makes so marked a feature of the continent.

The section of the Canadian Pacific Railway connecting the waters of Lake Superior with Manitoba is already under contract. It presents engineering difficulties: but will be completed in 1882.

Another section of the Canadian Pacific Railway west of Winnipeg has been completed as far as Portage LaPrairie; and the continuation of this road 300 miles further west will be immediately constructed. It is certain that settlement will immediately and very rapidly fill up the country along the whole length of its line.

There is at present railway communication with Manitoba which connects it with the railway system of Canada, *via* the United States, and with the United States railways. A train may now be started at Halifax on the Atlantic seaboard or at Quebec on the St. Lawrence; and without

any break or change be run continuously to St. Boniface, a suburb of the city of Winnipeg. Other Railways have obtained charters, and it is understood that the South Western from Winnipeg to the Souris Coal Fields is to be immediately constructed.

The Red River is navigated from Moorhead and Fargo, the point at which the Northern Pacific Railway crosses, to Winnipeg. Numerous steamboats ply on its waters. The navigation continues to Lake Winnipeg; thence along the lake to the junction of the great River Saskatchewan, where there is a short break surmounted by a tramway; and thence the navigation continues westward across the continent to the Rocky Mountains.

Wheat has not been hitherto much cultivated in Manitoba, because there was no market; but with the present arrangements, it has been conveyed to Montreal for about 30 cents a bushel. It is however calculated that when the branch of Railway now under contract to Thunder Bay is completed, wheat may be taken from Winnipeg to Montreal for 15 or 20 cents a bushel, and thence to Liverpool by ocean steamer for 10 or 15 cents a bushel more. If it is further calculated that it may be grown in Manitoba and delivered by the farmer in Winnipeg at 55 cents a bushel, we shall thus have the fact of wheat from Manitoba on the wharves at Liverpool for 80 or 90 cents a bushel, or about 26s. 6d., or 30s. sterling per quarter. This is not only a possibility but a probability. There cannot be a question that wheat may be profitably grown and delivered in Manitoba for 55 cents a bushel; while the figures of transport stated are based on present prices. The works on the Canadian Pacific Railway, and the rapid entry of population into the North West, will largely stimulate the production.

This opening up of markets has also led to considerable enterprise in stock raising in Manitoba, and the portions of territory beyond its western frontier. It has already been remarked that the meats from the cattle and sheep fed on these western prairies, are of superior excellence; and that many of the cattle, which are taken by rail from Chicago, the great cattle market of the American continent, to the Atlantic seaboard, and thence shipped to the United Kingdom, are in the first place sent to Chicago,

from more distant points than Manitoba. There is, therefore, little doubt that cattle which have grown fat on the prairies of Manitoba, will find their way by the St. Lawrence route to the markets of the United Kingdom.

VI. GENERAL SUITABILITY FOR EMIGRANTS FROM EUROPE.

An inhabitant from Europe going to Manitoba, exchanges the conditions of a very old and densely settled country for one that is entirely new ; just emerging, in fact, from the wild, and very thinly settled. The settler must, therefore, make up his mind to do the roughing of pioneer life. This, however, if rugged, is not unhealthy ; and the condition is sweetened by the fact, that he is establishing his own homestead, and is the master of his own broad acres, than which there are probably none under the sun containing a more generous or richer soil. None who are unwilling to undergo the hardships incident to pioneer life, should undertake to go and take up wild land in Manitoba. But those who have this endurance, who make up their minds to adapt themselves to a new country, and who have sufficient means to enable them to live over one year, may count upon success with greater certainty than in almost any other walk of life. A settler of this class, when he has fairly established himself, may, for the remainder of his life, count confidently upon the conditions of plenty and independence.

Manitoba, unlike the old country which the settler from Europe will leave behind him, is to a great extent a treeless expanse. There are however, groves of trees ; and some very fine woods along the rivers. Forest trees also when planted and protected from the prairie fires, grow with very great rapidity. In fact it is said that a settler on one hundred acres of prairie land can get respectable trees about him in less time than he could clear the same number of acres of forest land. It is seen also in Illinois and others of the Western United States, that farms which were started some years ago on the treeless prairie, have now a respectable growth of wood around them.

The settler in Manitoba from the United Kingdom will find on the whole a much brighter and drier climate, warmer in summer and colder in

winter, than that he has left behind. It is, on the whole more pleasant to live in ; and, as has been already stated, is one of the healthiest in the world.

The conditions of farming with slight adaptation to circumstances are the same, in that the settler will grow the grains and grasses, and raise the same kind of stock and domestic animals as in the United Kingdom, without the elaborate methods and expensive manures now necessary to make very old cropped soils give their increase.

The settler from the United Kingdom, in Manitoba, will also find his language, his religion, and means to educate his children from the common school to the college.

It is on the whole therefore, to be said, that Manitoba presents not only a suitable, but an advantageous field for the settlement of those who leave the United Kingdom.

VII. SYSTEM OF SURVEY AND PRACTICAL DIRECTIONS FOR TAKING UP FARMS.

The system of surveys or of laying out the land in Manitoba, is the most simple and easily understood in the world. Every township is exactly six miles square ; and each township is divided into sections of 1 mile square, or 640 acres. These sections are again subdivided into half-sections of 320 acres ; quarter sections of 160 acres ; and half quarter sections of 80 acres each. These terms are legal or statutory definitions of the divisions and subdivisions of land in Manitoba, and the North-West Territory of the Dominion.

The Townships start from a base line which is the International Boundary Line, which runs due East and West ; and from a point a little to the West of that at which the Red River enters the Province, a line called the Principal Meridian is run due North. The Ranges of the Townships which are marked on the maps in Roman characters, run East and West from the Meridian line, and the numbers of the Townships marked on the maps in the common figures, run North from the Boundary or first Base Line.

From this very simple but scientific method of arrangement, any Township, or Section, or Subdivision of a Section, can be instantly and unerringly described. A transfer or conveyance of property may thus be made by deed in as few words as any ordinary Bill of Parcels, and that with an accuracy and absoluteness of definition to which it is quite impossible to attain by those multitudes and mazes of words written on skins of parchment, still in use in the conveyancing of the mother country. In the ordinary nomenclature of the country, the divisions start from the smaller to the larger, thus : sec. 5, township 4, range 1, West.

The settler from the United Kingdom will at first find the nomenclature of this system of survey, a little new and strange ; but he will, on slight acquaintance with it, become charmed with its simplicity and accuracy.

The Surveys are marked on the prairie itself by iron and other kinds of monuments and posts at the corners of the divisions and subdivisions ; and so soon as the settler makes himself acquainted with these, he will instantly understand the position and extent of his own farm on the prairie, or of any other in the country.

A settler may obtain a grant of 160 acres of land free, on the condition of three years continued residence ; and he may purchase on reasonable terms the adjoining land.

A settler in Manitoba may commence on comparatively small capital ; that is enough to build one of the inexpensive houses of the country, to buy a yoke of oxen and a plough, his seed grain, and sufficient provisions to enable him to live for one year, or until his first crop comes in. With a little endurance, at first, from this point the settler may attain to a position of plenty and independence.

On the other hand, a settler may take with him to Manitoba, considerable capital, and invest it in large farming operations, either in wheat growing, or stock raising, both of which he will probably find very profitable.

The sum of £125 Stg., which is in round numbers about 600 dollars of Canadian currency, would enable a farmer to begin on a moderate scale of comfort. That sum would be divided, perhaps, in some cases, with a little variation, as follows :

One yoke of oxen.....	\$120.00
One wagon.....	80.00
Plough and Harrow.....	25.00
Chains, Axes, Shovels, &c.....	30.00
Stoves, Bedsteads, &c.....	60.00
House and Stable.....	150.00
Provisions.....	135.00
	<hr/>
	\$600.00

Of course a capital of £200 or \$1,000 would enable a farmer to start in a better style and with more comfort. Many have, however, started with as small a capital as \$400, (about £80 stg) ; the Red River Cart which costs about ten dollars, and one ox, might do all the teaming required on a small farm to begin with, and after the first "breaking" one ox could do all the ploughing required for a family.

The German Mennonite settlers who came to Canada from South Russia a few years ago, that is the poorer families of them, started with very much less ; and they are to-day very prosperous, and raise large crops of grain, besides growing flax, of which they export the seed, and are well supplied with live stock from the products of which they do a thriving trade in Winnipeg Markets. The only question is whether families from the United Kingdom would stint themselves in the same way these thrifty settlers did, and endure what they went through to arrive at their present success.

The Mennonite outfit of the poorer families averaging 5 persons, consisted of one yoke of oxen, one cow, one plough, one wagon, and one cooking stove ; the whole obtained at a cost of \$270 or £56. This comprised the outfit of one family, and in the case of the poorest, two families clubbed together to use one outfit. The cost of provisions for subsistence of one family for a year was \$93, £18.15, the provisions consisting almost wholly of flour, pork and beans. No money was expended on the buildings in which they first lived. These consisted for the first year of brush, laid sloping on poles, covered with earth. This fact is stated to show from how small a beginning a settler may successfully start and attain plenty ; but seeing that the log house of the country can be built at so moderate a rate, prob-

ably few settlers from the United Kingdom, would be willing to do as the Mennonites did. Many a man will, however, make a hard struggle for independence, and find both his labour and his hardships sweetened by the consciousness of the daily steps he is taking towards that end. It may further be mentioned, that for some years to come, there will be railways and other public works in progress, on which the poorer settler may work for a part of the time at good wages ; and so obtain means to tide over the first difficulties of a settler's life, with more comforts.

Lastly, but not least, on the contrary, even greatest in importance, is the caution to be given to the settler from the United Kingdom, to be careful to adapt himself to those methods which the experience of the country has proved to be wise, rather than to try to force in a new country those practices to which he has been accustomed at home.

For instance, with respect to ploughing, or as it is called, "breaking" the prairie, the method in Manitoba is quite different from that in an old country. The prairie is covered with a rank vegetable growth, and the question is how to subdue this, and so make the land available for farming purposes. Experience has proved that the best way is to plough not deeper than *two inches*, and turn over a furrow from twelve to sixteen inches wide. This is well done during the months of June and July. It is found that the sod is effectually killed when turned over during these two months, but if land is ploughed earlier than the middle of June it should be cropped, (oats make a specially good first crop.) From 40 to 50 bushels of oats are raised on the first spring's breaking. A settler may get crops on land ploughed and sown in May or June. When the sod is subdued, the land is found to be mellow and friable. The frosts of winter appear to have a pulverising effect, and very largely supplement the labours of man.

It has happened that some farmers from older countries, in love at home with deep ploughing, have despised the methods of the country and tried deep ploughing in Manitoba. These men have come to learn wisdom from practical disappointment, but this is an unnecessarily expensive lesson. The settler may of course plant potatoes the first year for his family use, and do other little things of that kind. Potatoes may be put in as late as June the 20th, and all that is required to turn over a furrow,

put the potatoes on the ground, and then turn another furrow to cover them, the face of the grass being placed directly on the seed. No hoeing or further cultivation is required, except to cut off any weeds that may grow. Very heavy crops of fine potatoes are grown in this way, this year.

Flax is also a good crop to put on the first breaking.

Before the prairie is broken, the sod is very tough and requires great force to break it, but after it has once been turned, the subsequent ploughings are very easy, from the friability of the soil, and gang ploughs might easily be used.

On account of the great force required to break the prairie in the first instance, the settler would probably find oxen better than horses, especially as there is a liability of horses becoming sick in Manitoba when first taken there from the older parts of the continent, until they become accustomed to the new feed and the country, especially if they are worked hard. A correspondent gives the following result of his experience: "I have been watching the amount of work done by the different sized ploughs, and give you the result after careful and repeated measurements. First, the 12 inch plough turns an average furrow of $11\frac{1}{2}$ inches as nearly as can be, 10 furrows measuring 9 feet 6 to 9 feet 8 inches. The 14 inch plough turns a furrow averaging 13 inches, and the 16 inch plough a furrow averaging 15 inches. Our furrows being exactly two miles long, by my calculations, three 12 inch ploughs will in four lengths turn over 5 acres, 147 rods; or 2 acres for each plough per day less $4\frac{1}{2}$ rods; 6 horses on two 14 inch ploughs will turn over 4 acres 52 rods in a day. Two 16 inch ploughs with three horses each would do 5 acres in a day, making a difference in favour of the 12 inch plough of $\frac{5}{8}$ ths of an acre. Another man is required for the three 12 inch ploughs, but $\frac{5}{8}$ ths of an acre a day will more than pay his wages." It is to be observed, however, that horses when first taken to Manitoba are not in a condition to endure steadily for two months, work so hard as that indicated by the correspondent whose letter is quoted. It is for this reason, that oxen which are not liable to the same casualties as horses, are better for breaking the prairie. The same correspondent states

that a pair of oxen will break an acre and a half a day, and every day, with very little or no expense at all for feed. The wages of one man, to drive them, would cost about 30 dollars a month, without board. The expense of breaking in this way is very small.

VIII. ROUTES, AND HOW TO REACH MANITOBA.

The information on this head is exceedingly simple. The emigrant from the United Kingdom should consult the nearest steamship agent with whom he should book. And he can take, according to his means, either the cabin, the intermediate or the steerage passage, on one of the magnificent Steamers that now come to the St. Lawrence by taking this route he will cross the ocean at its narrowest point, and in 5 or 6 days after leaving the coast of Ireland, will enter the still waters and magnificent scenery of the great St. Lawrence River making the entire passage to Quebec, in about 8 days, on the faster vessels; or in 10 or 12 days on those which are not so fast. For the steamer's sailing and the rates o. fare, he should consult the advertisements or th handbills.

The booking agent will place him in a position to be directly conveyed with the greatest expedition and comfort; and least expense, to Manitoba.

When he arrives at Quebec, he can go *via* Chicago and St. Paul, in the United States, all the way to Manitoba by rail; or he can take the Railway from Quebec to the ports of either Sarnia or Collingwood, whence he has the choice of two steamboat lines, to the port of Duluth, at the head of Lake Superior, where he will find a Canadian agent, (Mr. Grahame) who will assist in bonding his luggage to pass through a portion of the United States, and otherwise give him every information to guide and assist him. From the point of Duluth, he will be conveyed by Railway, all the way to Manitoba.

The emigrant or second class fare in 1880 from Quebec to Winnipeg *via* Duluth was \$25.50, and by the all rail route *via* Chicago and St. Paul \$30.50. First class tickets are from \$52.00 to \$59.25. Children under thirteen are taken at half price, and one hundred and fifty lbs. of luggage is allowed to each adult. There will probably be very little, if any, difference, in the above rates in 1881. In the case of a colony going together, the settlers

might hire a railway car for the carriage of their effects, other than their luggage, to the point of the steamboat port, or continuously, and by this means, get a cheaper rate of freight. Many of the settlers from the older parts of Canada do this.

It is not recommended to the settler who is travelling to Manitoba to burden himself with heavy furniture and luggage, as the freight of those would probably cost him as much as they are worth. As a rule, the emigrants should be advised not to take with them either furniture or agricultural implements. The latter particularly, specially adapted to the country, can be cheaply purchased at Emerson or Winnipeg; but a plentiful supply of clothing and bedding should be taken, together with such articles of general use as can be conveniently and easily packed. Of course artisans who go will take their own special tools with them; but they must remember that this may be expensive if they are heavy.

The emigrants will be met at Winnipeg by Mr. Hespeler, the Government agent, who will give them every possible information and assistance and give them directions how to proceed to their lands; or if they take Emerson, as the point in the Province from which they start, they will find a shed at the Railway Station, and buildings at Dufferin, at which they can rest, while Mr. Tetu, the Government agent, will give them information.

IX. WHEN TO GO TO MANITOBA.

The settler was formerly advised not to go to Manitoba to search for land until the roads became dry after the spring rains, but such advice is no longer given, as with the railway already constructed, he will no longer experience difficulty in getting over the wet places west of Winnipeg at any season.

It is in fact almost a misnomer, to speak of *roads* at all, in the sense of roads found in older countries. It must be remembered that Manitoba is very newly settled; and that there has been no time yet to make roads. Those which have been hitherto used are simply, with very little exception, trails across the prairie, which has been nowhere drained. The surface is more or less rolling, and in some places the surface water does not dry before the summer is far advanced. Last spring was unusually wet, and emi-

grants who attempted to travel 100 miles west of Winnipeg suffered the greatest hardships. Many persevered and success crowned their efforts; but many left the country disappointed. But these difficulties will be no longer encountered by those who desire to go west of Winnipeg.

If a settler has previously selected land, or is going to some definite point, he may with advantage avail himself of the snow roads, before the breaking up of the winter; or he may go in the early spring months if the location selected is in a part of the country which is at the time easily accessible; but if he goes "land hunting," as it is called, he can get best about the country in the months of July, August and September.

A settler commencing in the early spring may raise a crop on the first "breaking," that is, on the first prairie sod that he turns, as late as the beginning of June. Wheat will grow on the first breaking, but oats or flax seed are better adapted to it. Large crops of oats are raised on the first breaking. After the rotting of the prairie sod, the soil becomes mellow and friable. It is an advantage in Manitoba to sow grain the moment the snow goes away, as soon as the frost is two or three inches out of the ground.

Settlers entering the Province in July, August or September, have the most pleasant weather in which to go about, and pick out land for their farms. They will have time also to build their houses and prepare for the winter; also to prepare for the spring by doing a little fall ploughing. This mode of settling has greater comforts, but requires a little more means to live until the first crop comes.

The settler can obtain information at either the Government Immigration offices, or at the land offices in Manitoba, respecting lands available for settlement, and pains will be taken to afford him the best possible guidance and furnish him with the Government Land Regulations.

WHAT TENANT FARMERS' DELEGATES SAY.

MR. BIGGAR, *The Grange, Dalbeattie.*

"As a field for wheat raising, I would much prefer Manitoba to Dakota. The first cost of the land is less; the soil is deeper and will stand more cropping; the sample of wheat is better, and the produce 5 to 10 bushels per acre more, all of which is profit."

MR. GEORGE COWAN, *Annan*,

Speaking of Mr. McKenzie's farm at Burnside, says :—" I was certainly uprised at the wonderful fertility of the soil, which is a rich black loam, averaging about 18 inches of surface soil, on friable clay subsoil, 5 and 6 feet in depth, beneath which is a thin layer of sand, lying on a stiff clay. The land is quite dry, and is well watered by a fine stream which flows through it."

* * * *

"The land between Rapid City and the Assiniboine, which lies to the Southward, 25 miles distant, is a nice loam with clay subsoil on top or gravel. I was very highly impressed with the fertility of the soil, some of it being without exception the richest I have ever seen, and I have little doubt it will continue for many years to produce excellent crops of grain without any manure, and with very little expense in cultivation."

MR. JOHN LOGAN, *Earlston, Berwick*, says :—

"All the land round this district, (Assiniboine), is very good, being four feet deep of black loam, as we saw from a sand pit."

MR. JOHN SNOW, *Midlothian*.

"Along the Red River and about Winnipeg the soil is very strong black vegetable mould, and I have no doubt most of it would carry paying crops of wheat for thirty years ; but it is very flat, and I must say that I like the country better West of Winnipeg, and the furthest point we reached, 150 miles West of Winnipeg, best of all. You have here the Little Saskatchewan River, and fine sloping ground on each side ; the soil and what it produced was good, as you will see from the samples of each I now show you. I also show you samples from other parts ; and, as I will show you further on, the Americans themselves admit that we have ground better adapted for growing wheat and raising cattle than they have."

* * * *

"We saw that a black vegetable mould covered the surface from 18 inches to two, three, or four feet deep."

MR. ROBERT PEAT, *Silloth, Cumberland*.

"SOIL.—Contrary to my expectations, instead of finding a wet swamp, as pictured to my mind, I found a deep black loamy soil, varying in depth from $2\frac{1}{2}$ feet to $3\frac{1}{2}$ feet; and in some places where it has been cut through on the banks of some rivers, it has been found to the depth of 10 to 12 feet, and is specially adapted for the growing of wheat, being preferred by the millers to almost any other on account of it being so dry and thin skinned. It has been known to grow wheat many years in succession, without manure. If the report was correct, the soil I have sent down to you has grown wheat for 30 years, and the last crop yielded 35 bushels per acre."

MR. JOHN MAXWELL, *Carlisle*.

"The soil throughout the country is a rich black loam, 6 inches to 6 feet deep, almost entirely free from stones, and varying in quality in different districts, on a subsoil of strong or friable clay or sand."

MR. JAMES BIGGAR, *of the Grange, Dalbeattie*, says:—

"We hear very different statements of the yield of wheat, varying from 22 to 40 bushels. McLean, a farmer near Portage, had 1,230 bushels of Fife wheat off 40 acres. Another man, a native of Ross-shire, who was ploughing his own land, told us he had cropped it for 17 years in succession, his last crop yielding 35 bushels per acre. Mr. Ryan, M. P., a good authority, said the average of wheat might safely be taken at 25 to 30 bushels, and of oats 60 bushels. . . Next day we drove over Messrs. Riddles' farm; their wheat has averaged fully 30 bushels per acre."

MR. GEORGE COWAN, *Glenluce, Wigtown*, says:—

Mr. Mackenzie's farm is at Burnside, about 9 miles from Portage la Prairie. . . He favoured me with his average for the seasons of 1877 and 1878, and his estimate for the present year. Wheat crop, 1877, 41 bushels; 1878, 36 bushels, this year (1879) he expects it to be close on 40 bushels, average weight 60 to 62 lbs.; but he has grown it as high as 64 lbs. per bushel. Oats last year (1878) he had a yield of 88 bushels from two bushels of seed sown on one acre, this year (1879) his estimate is from 75 to 80 bushels per acre. Mr. M. also grows excellent root crops, his Swede turnips

averaging 30 to 35 tons; and potatoes, without any care in cultivation, sometimes even not being moulded up, yield between 300 and 400 bushels of 50 lbs. Onions when cultivated are also very prolific, yielding as much as 300 bushels per acre. Mangold also grows very heavy crops, but I did not see any on the ground.”

* * * *

“ We spent a short time on the farm of Mr. McBeth, and walked over a field which I was informed had been continuously under crop for 54 years. . . . I was told it would average 28 or 30 bushels per acre.

MR. R. W. GORDON, *Annan.*

“ Wheat may be safely estimated to yield with reasonable cultivation 30 bushels of 60 lbs., and oats 60 bushels of 32 lbs.”

MR. LOGAN, *Earlstown,*

Speaking of the yield about High Bluff, says:—“ The land here has grown wheat for 40 years in succession, yielding from twenty five up to 40 bushels per acre. There are not many oats sown here, but the general produce is 70 bushels per acre.

* * * *

“ We arrived at Portage on Saturday afternoon. . . . He told us he had grown good crops at an average of 32 bushels per acre of 60 pounds weight.”

MR. SNOW, *Fountain Hall, Midlothian.*

“ I consider I keep safely within the mark, when I say that taking a good piece of land it will produce 40 bushels the first year, and an average of 30 bushels for 30 years, without manure.

MR. JOHN MAXWELL, *Carlisle.*

“ I gave an estimate of the cost of the wheat crop in Dakota. The same system may be adopted in the Canadian North-West to advantage, as the average yield, so far as can be learn be learned on present information, will be 8 to 10 bushels per acre higher than the yield in Dakota, United States Territory, and every extra bushel produced tends to reduce the first cost per bushel to the producer.”

All the other delegates confirm these figures.

WHAT EMINENT MEN SAID.

HORACE GREELEY said: "Go West, young man, and grow with the Country."

BLODGETT said: "The basin of the Winnipeg is the seat of the greatest average wheat product of the American Continent, and probably of the world."

DORD DUFFERIN said: "This undreamt of Dominion, whose illimitable dimensions alike confound the arithmetic of the surveyor and verification of the explorer."

United States Consul TAYLOR said: "Three-fourths of the wheat producing belt of North America, are north of the National (United States) Boundary."

CAPTAIN PALLISER said: "It is a Physical reality of the highest importance to the interests of British North America that this continuous belt can be settled and cultivated from a few miles west of the Lake of the Woods to the passes of the Rocky Mountains."

ARCHBISHOP TACHE said: "The Great Author of the Universe has been pleased to spread out by the side of the Grand and Wild beauties of the Rocky Mountains, the captivating pleasure grounds of the plains of the Saskatchewan."

LORD MILTON said: "As an agricultural country its advantages can hardly be surpassed. The climate is milder than that of the same portion of Canada, which lies within the same latitude. Cereals of almost every description flourish even under the rude cultivation of the half breeds."

MR. W. B. CHEADLE said: "At Edmonton, 800 miles distant from Fort Garry, near the Western extremity, wheat grows with equal luxuriance, and yields thirty to fifty bushels to the acre."

REV. G. M. GRANT said: "The soil is almost everywhere a peaty or sandy loam resting in clay. Its only fault is that it is too rich, crop after crop is raised without fallow or manure."

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